TABLE OF CONTENTS

ERHQ006-016BAV3

1 Features 134

2 Specifications 135
Nominal Capacity and Nominal Input 135
Technical Specifications 135
Electrical Specifications 138

3 Capacity tables 140
Cooling capacity tables 140
Heating capacity tables 141
Cooling/Heating capacity tables 143

4 Dimensional drawing & centre of gravity 144
Dimensional drawing 144
Centre of gravity 145

5 Piping diagram 146

6 Wiring diagram 147
Wiring diagram 147

7 Sound data 148
Sound pressure spectrum 148
Sound pressure spectrum quiet mode 150

8 Installation 152
Installation method 152

9 Operation range 154

2 Specifications

2-1 NOMINAL CAPACITY AND NOMINAL INPUT				ERHQ011BAV3	ERHQ014BAV3	ERHQ016BAV3	ERHQ006BAV3	ERHQ007BAV3	ERHQ008BAV3
For combination indoor units + outdoor units	Indoor Units			EKHBH016BA	EKHBH016BA	EKHBH016BA	EKHBH008BA	EKHBH008BA	EKHBH008BA
Condition 1	Heating capacity	Minimum	kW				4.36	4.36	4.36
		Nominal	kW	11.2	14.0	16.0	5.75	6.84	8.43
		Maximum	kW				7.45	8.79	9.58
	Heating PI	Nominal	kW	2.46	3.17	3.83	1.26	1.58	2.08
	COP	Nominal		4.55	4.42	4.18	4.56	4.34	4.05
Nominal Capacity	Heating capacity	Minimum	kW				3.87	3.87	3.87
		Nominal	kW	10.3	13.1	15.2	5.03	6.10	7.64
		Maximum	kW				6.68	7.98	8.76
	Heating PI	Nominal	kW	3.06	3.88	4.66	1.58	1.95	2.54
	COP	Nominal		3.37	3.38	3.26	3.18	3.13	3.00
For combination indoor units + outdoor units	Indoor Units			EKHBX016BA	EKHBX016BA	EKHBX016BA	EKHBX008BA	EKHBX008BA	EKHBX008BA
Condition 1	Heating capacity	Minimum	kW				4.36	4.36	4.36
		Nominal	kW	11.2	14.0	16.0	5.75	6.84	8.43
		Maximum	kW				7.45	8.79	9.58
	Cooling capacity	Minimum	kW				4.82	4.82	4.82
		Nominal	kW	13.9	17.3	17.8	7.20	8.16	8.37
		Maximum	kW				7.20	8.50	8.91
	Heating PI	Nominal	kW	2.46	3.17	3.83	1.26	1.58	2.08
	Cooling PI	Nominal	kW	3.79	5.78	6.77	2.27	2.78	2.97
	COP	Nominal		4.55	4.42	4.18	4.56	4.34	4.05
	EER	Nominal		3.67	2.99	2.63	3.17	2.94	2.82
Nominal Capacity	Heating capacity	Minimum	kW				3.87	3.87	3.87
		Nominal	kW	10.3	13.1	15.2	5.03	6.10	7.64
		Maximum	kW				6.68	7.98	8.76
	Cooling capacity	Minimum	kW				3.67	3.67	3.67
		Nominal	kW	10.0	12.5	13.1	5.12	5.86	6.08
		Maximum	kW				5.12	6.13	7.10
	Heating PI	Nominal	kW	3.06	3.88	4.66	1.58	1.95	2.54
	Cooling PI	Nominal	kW	3.60	5.29	5.95	2.16	2.59	2.75
	COP	Nominal		3.37	3.38	3.26	3.18	3.13	3.00
	EER	Nominal		2.78	2.36	2.20	2.37	2.26	2.21
Notes				Condition 1: cooling Ta 35°C - LWE 18°C - heating Ta DB/WB 7°C/6°C - LWC 35°C (DT = 5°C)	Condition 1: cooling Ta 35°C - LWE 18°C - heating Ta DB/WB 7°C/6°C - LWC 35°C (DT = 5°C)	Condition 1: cooling Ta 35°C - LWE 18°C - heating Ta DB/WB 7°C/6°C - LWC 35°C (DT = 5°C)	Condition 1: cooling Ta 35°C - LWE 18°C (DT = 5°C) - heating Ta DB/WB 7°C/6°C - LWC 35°C (DT = 5°C)	Condition 1: cooling Ta 35°C - LWE 18°C (DT = 5°C) - heating Ta DB/WB 7°C/6°C - LWC 35°C (DT = 5°C)	Condition 1: cooling Ta 35°C - LWE 18°C (DT = 5°C) - heating Ta DB/WB 7°C/6°C - LWC 35°C (DT = 5°C)
				Condition 2: cooling Ta 35°C - LWE 7°C (DT = 5°C) - heating Ta DB/WB 7°C/6°C - LWC 45°C (DT = 5°C)					

2-2 TECHNICAL SPECIFICATIONS				ERHQ011BAV3	ERHQ014BAV3	ERHQ016BAV3	ERHQ006BAV3	ERHQ007BAV3	ERHQ008BAV3
Casing	Colour			Ivory white					
	Material			Painted galvanised steel plate	Painted galvanised steel plate	Painted galvanised steel plate	Polyester painted galvanised steel	Polyester painted galvanised steel	Polyester painted galvanised steel
Dimensions	Unit	Height	mm	1,170	1,170	1,170	735	735	735
		Width	mm	900	900	900	825	825	825
		Depth	mm	320	320	320	300	300	300
	Packing	Height	mm	1,349	1,349	1,349	797	797	797
		Width	mm	980	980	980	960	960	960
		Depth	mm	420	420	420	390	390	390

2 Specifications

2-2 TECHNICAL SPECIFICATIONS				ERHQ011BAV3	ERHQ014BAV3	ERHQ016BAV3	ERHQ006BAV3	ERHQ007BAV3	ERHQ008BAV3
Weight	Unit		kg	103	103	103	57	57	57
	Packed Unit		kg	114	114	114	62	62	62
Packing	Material			EPS					
				Carton					
				Wood	Wood	Wood			
				PE (Straps)	PE (Straps)	PE (Straps)			
	Weight		kg	11	11	11	5	5	5
Heat Exchanger	Dimensions	Length	mm	857	857	857	845	845	845
		Nr of Rows		2	2	2	2	2	2
		Fin Pitch	mm	1.4	1.4	1.4	1.8	1.8	1.8
		Nr of Passes		6	6	6			
		Face Area	m²	0.98	0.98	0.98			
		Nr of Stages		52	52	52	32	32	32
	Tube type			Hi-XSS(8)	Hi-XSS(8)	Hi-XSS(8)	Hi-Xa(8)	Hi-Xa(8)	Hi-Xa(8)
	Fin	Type		WF fin					
		Treatment		Anti-corrosion treatment (PE)					
Fan	Type			Propeller					
	Quantity			2	2	2	1	1	1
Air Flow Rate (nominal at 230V)	Heating	High	m³/min	90	90	90			
	Cooling	High	m³/min	96	100	97			
Fan	Discharge direction			Horizontal					
	Motor	Quantity		2	2	2	1	1	1
		Model		Brushless DC motor	Brushless DC motor	Brushless DC motor			
		Output	W				53	53	53
Motor	Speed (nominal)	Steps		8	8	8			
		Heating	rpm	760	760	760			
		Cooling	rpm	800	850	830			
Fan	Motor	Output	W	70	70	70			
		Drive		Direct drive	Direct drive	Direct drive			
Compressor	Quantity			1	1	1	1	1	1
	Motor	Model		JT100G-VD	JT100G-VD	JT100G-VD	2YC63BXD#C	2YC63BXD#C	2YC63BXD#C
		Type		Hermetically sealed scroll compressor	Hermetically sealed scroll compressor	Hermetically sealed scroll compressor	Hermetically sealed swing compressor	Hermetically sealed swing compressor	Hermetically sealed swing compressor
		Motor Output	W	2,200	2,200	2,200	1,920	1,920	1,920
		Starting Method		Inverter driven	Inverter driven	Inverter driven			
Motor	Crankcase Heater	Output	W	33	33	33			
Operation Range	Heating	Min	×CWB	-20	-20	-20	-20	-20	-20
		Max	×CWB	35	35	35	25	25	25
	Cooling	Min	×CDB	10	10	10	10	10	10
		Max	×CDB	46	46	46	43	43	43
	Sanitary water	Min	×CDB	-20	-20	-20	-20	-20	-20
		Max	×CDB	43	43	43	43	43	43
Sound Level (nominal)	Heating	Sound Power	dBA	64	64	66	61	61	62
		Sound Pressure	dBA	49	51	53	48	48	49
	Cooling	Sound Power	dBA	64	66	69	63	63	63
		Sound Pressure	dBA	50	52	54	48	48	50
Sound Level (Night quiet)	Heating	Sound Pressure	dBA	42	42	43			
	Cooling	Sound Pressure	dBA	45	45	46			
Refrigerant	Type			R-410A					
	Charge		kg	3.7	3.7	3.7	1.7	1.7	1.7
	Control			Expansion valve(electronic type)					
	Nr of Circuits			1	1	1	1	1	1
Refrigerant Oil	Type			Daphne FVC68D	Daphne FVC68D	Daphne FVC68D	FVC50K	FVC50K	FVC50K
	Charged Volume		l	1.0	1.0	1.0	0.75	0.75	0.75

2 Specifications

2-2 TECHNICAL SPECIFICATIONS				ERHQ011BAV3	ERHQ014BAV3	ERHQ016BAV3	ERHQ006BAV3	ERHQ007BAV3	ERHQ008BAV3
Piping connections	Liquid (OD)	Quantity		1	1	1			
		Type		Flare connection					
		Diameter (OD)	mm	9,52	9,52	9,52	6,35	6,35	6,35
	Gas	Quantity		1	1	1			
		Type		Flare connection					
		Diameter (OD)	mm	15,9					
	Drain	Quantity		3	3	3	1	1	1
		Type		Hole	Hole	Hole	Socket	Socket	Socket
		Diameter (OD)	mm	26	26	26	18	18	18
	Piping Length	Minimum	m	5	5	5	3	3	3
		Maximum	m	75	75	75	30	30	30
		Equivalent	m	95	95	95			
		Chargeless	m	30	30	30			
	Additional Refrigerant Charge		kg/m	See installation manual outdoor unit 4PW37976-1B	See installation manual outdoor unit 4PW37976-1B	See installation manual outdoor unit 4PW37976-1B	0.02>10m	0.02>10m	0.02>10m
	Installation height difference	Maximum	m	30	30	30			
	Max. internunit level difference		m				20	20	20
	Heat Insulation			Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes			
Defrost Method				Pressure equalising	Pressure equalising	Pressure equalising	Reverse cycle	Reverse cycle	Reverse cycle
Defrost Control				Sensor for outdoor heat exchanger temperature					
Capacity Control Method				Inverter controlled					
Safety Devices				Fan motor thermal protector	Fan motor thermal protector	Fan motor thermal protector			
				Fuse	Fuse	Fuse			
				High pressure switch	High pressure switch	High pressure switch			

2 Specifications

2-2 TECHNICAL SPECIFICATIONS		ERHQ011BAV3	ERHQ014BAV3	ERHQ016BAV3	ERHQ006BAV3	ERHQ007BAV3	ERHQ008BAV3
Standard Accessories	Item	Tie-wraps	Tie-wraps	Tie-wraps	Installation manual	Installation manual	Installation manual
	Quantity	2	2	2	1	1	1
	Item	Installation manual	Installation manual	Installation manual	Drain plug	Drain plug	Drain plug
	Quantity	1	1	1	1	1	1
Notes		The sound pressure level is measured via a microphone at a certain distance from the unit. It is a relative value depending on the distance and acoustic environment. Refer to sound spectrum drawing for more information.	The sound pressure level is measured via a microphone at a certain distance from the unit. It is a relative value depending on the distance and acoustic environment. Refer to sound spectrum drawing for more information.	The sound pressure level is measured via a microphone at a certain distance from the unit. It is a relative value depending on the distance and acoustic environment. Refer to sound spectrum drawing for more information.	See operation range drawing	See operation range drawing	See operation range drawing
		Down to 3m with recharging of the outdoor unit. Refer to the installation manual of the outdoor unit.	Down to 3m with recharging of the outdoor unit. Refer to the installation manual of the outdoor unit.	Down to 3m with recharging of the outdoor unit. Refer to the installation manual of the outdoor unit.	The sound pressure level is measured via a microphone at a certain distance from the unit. It is a relative value depending on the distance and acoustic environment. Refer to sound spectrum drawing for more information.	The sound pressure level is measured via a microphone at a certain distance from the unit. It is a relative value depending on the distance and acoustic environment. Refer to sound spectrum drawing for more information.	The sound pressure level is measured via a microphone at a certain distance from the unit. It is a relative value depending on the distance and acoustic environment. Refer to sound spectrum drawing for more information.

2-3 ELECTRICAL SPECIFICATIONS				ERHQ011BAV3	ERHQ014BAV3	ERHQ016BAV3	ERHQ006BAV3	ERHQ007BAV3	ERHQ008BAV3
Power Supply	Name			V3					
	Phase			1~					
	Frequency		Hz	50	50	50	50	50	50
	Voltage		V	230	230	230	230	230	230
	Voltage range	Minimum	V	-10%					
		Maximum	V	+10%					

2 Specifications

2-3 ELECTRICAL SPECIFICATIONS				ERHQ011BAV3	ERHQ014BAV3	ERHQ016BAV3	ERHQ006BAV3	ERHQ007BAV3	ERHQ008BAV3
Current	Minimum Ssc value		kVa	Equipment complying with EN/IEC 61000-3-12: European/ International Technical Standard setting the limits for harmonic currents produced by equipment connected to public low-voltage systems with input current >16A and <=75A per phase	Equipment complying with EN/IEC 61000-3-12: European/ International Technical Standard setting the limits for harmonic currents produced by equipment connected to public low-voltage systems with input current >16A and <=75A per phase	Equipment complying with EN/IEC 61000-3-12: European/ International Technical Standard setting the limits for harmonic currents produced by equipment connected to public low-voltage systems with input current >16A and <=75A per phase	Equipment complying with EN/IEC 61000-S-12 (1)	Equipment complying with EN/IEC 61000-S-12 (1)	Equipment complying with EN/IEC 61000-S-12 (1)
	Starting current	Heating	A				11	11	11
		Cooling	A				11	11	11
	Maximum running Current	Heating	A				18	18	18
		Cooling	A	22.8	27.4	31.9	16.25	16.25	16.25
	Recomended fuses		A	32	32	32	20	20	20
Wiring connections	For Power Supply	Quantity					3	3	3
		Remark		See installation manual outdoor unit 4PW37976-1B	See installation manual outdoor unit 4PW37976-1B	See installation manual outdoor unit 4PW37976-1B			
	For connection with indoor	Quantity					4	4	4
		Remark		See installation manual outdoor unit 4PW37976-1B	See installation manual outdoor unit 4PW37976-1B	See installation manual outdoor unit 4PW37976-1B	Included earth wiring	Included earth wiring	Included earth wiring
Power Supply Intake				Outdoor unit only	Outdoor unit only	Outdoor unit only			
Notes							(1) European/ international technical standard setting the limits for harmonic currents produced by equipment connected to public low-voltage system with input current > 16A smaller than or equal to 75A per phase.	(1) European/ international technical standard setting the limits for harmonic currents produced by equipment connected to public low-voltage system with input current > 16A smaller than or equal to 75A per phase.	(1) European/ international technical standard setting the limits for harmonic currents produced by equipment connected to public low-voltage system with input current > 16A smaller than or equal to 75A per phase.

3 Capacity tables

3 - 1 Cooling capacity tables

ERHQ011-016BAV3

Maximum Cooling Capacity

Model	Tamb	20		25		30		35		40		45	
	LWE [°C]	CC [kW]	PI [kW]	CC [kW]	PI [kW]	CC [kW]	PI [kW]	CC [kW]	PI [kW]	CC [kW]	PI [kW]	CC [kW]	PI [kW]
R(H/L)Q011	7	11,7	2,56	11,2	2,86	10,6	3,21	10,0	3,60	9,39	4,03	8,75	4,50
	10	12,9	2,58	12,3	2,89	11,6	3,25	11,0	3,65	10,3	4,09	9,65	4,58
	13	14,1	2,59	13,4	2,92	12,8	3,29	12,1	3,70	11,3	4,15	10,6	4,65
	15	14,9	2,60	14,2	2,93	13,5	3,31	12,8	3,73	12,0	4,20	11,3	4,70
	18	16,2	2,61	15,5	2,96	14,7	3,35	13,9	3,79	13,1	4,26	12,3	4,78
	22	18,0	2,62	17,2	2,99	16,4	3,40	15,5	3,86	14,7	4,35	13,3	3,93
R(H/L)Q014	7	14,5	3,85	13,9	4,27	13,2	4,75	12,5	5,29	11,7	5,90	11,1	5,92
	10	16,0	3,94	15,3	4,37	14,6	4,86	13,7	5,42	12,9	6,04	11,2	5,46
	13	17,6	4,02	16,8	4,47	15,9	4,98	15,0	5,55	14,1	6,18	11,9	5,04
	15	18,6	4,08	17,8	4,54	16,9	5,06	15,9	5,64	14,9	6,28	12,2	4,79
	18	20,2	4,17	19,3	4,65	18,4	5,18	17,3	5,78	16,2	6,44	12,9	4,42
	22	22,5	4,29	21,5	4,80	20,4	5,36	19,3	5,98	17,0	5,33	13,3	3,93
R(H/L)Q016	7	15,3	4,37	14,7	4,84	13,9	5,37	13,1	5,95	12,2	6,59	11,1	5,92
	10	16,9	4,48	16,2	4,97	15,3	5,51	14,4	6,11	13,3	6,75	11,2	5,46
	13	18,5	4,60	17,7	5,10	16,7	5,66	15,7	6,27	14,6	6,93	11,9	5,04
	15	19,6	4,68	18,7	5,19	17,7	5,76	16,6	6,38	15,4	7,04	12,2	4,79
	18	21,0	4,97	20,0	5,52	18,9	6,12	17,8	6,77	16,4	6,69	12,9	4,42
	22	23,3	5,21	22,2	5,79	21,0	6,42	19,7	7,10	17,0	5,33	13,3	3,93

3TW57752-1C

9
3

SYMBOLS

CC : Cooling capacity at maximum operating frequency, measured acc. Eurovent 6/C/003-2006 (kW)
HC : Heating capacity at maximum operating frequency, measured acc. Eurovent 6/C/003-2006 (kW)
PI : Power input (kW), measured acc. Eurovent 6/C/003-2006 (kW)
LWE : Leaving Water Evaporator temperature (°C)
LWC : Leaving Water Condensor temperature (°C)
Tamb : Ambient temperature (°C) RH=85%

NOTES

1 **Cooling capacity**
Capacity is according to Eurovent rating standard 6/C/003-2006 and valid for chilled water range Dt = 3~8°C
Capacity values may not be extrapolated below 7°C leaving water temperature

2 **Heating capacity**
Capacity is according to Eurovent rating standard 6/C/003-2006 and valid for chilled water range Dt = 3~8°C

3 **Power input**
Power input is total of indoor and outdoor unit, except the circulation pump; according to Eurovent rating standard 6/C/003-2006.
Pump power input to be added = 90 W (according EN14511).
For ERHQ011-16AAW1 models only: if Tamb < 4°C: bottom plate heater power input to be added = 95 W

Notes:
- For the model with heatertape (*RLQ): when ambiernt temperature becomes lower than [F-02] (default = 3°C) bottom plate heater power input to be added = 95W
- [F-02] = BPH ON temp for more details see installationmanual of indoor unit.

3 Capacity tables

3 - 2 Heating capacity tables

ERHQ011-016BAV3

Maximum Heating Capacity (Peak values)

Model	LWC [°C]	30		35		40		45		50		55	
	Tamb	HC [kW]	PI [kW]	HC [kW]	PI [kW]	HC [kW]	PI [kW]	HC [kW]	PI [kW]	HC [kW]	PI [kW]	HC [kW]	PI [kW]
R(H/L)Q011	-20	5,66	2,17	5,48	2,37	5,44	2,61						
	-15	6,48	2,21	6,25	2,42	6,17	2,67						
	-7	8,04	2,24	7,74	2,46	7,63	2,72	7,50	3,02				
	-2	9,18	2,24	8,84	2,47	8,71	2,74	8,57	3,05	8,18	3,36		
	2	10,2	2,23	9,81	2,47	9,68	2,74	9,52	3,06	9,10	3,38	8,72	3,77
	7	11,6	2,21	11,2	2,46	10,8	2,74	10,3	3,06	9,94	3,42	9,53	3,82
	12	13,1	2,18	12,7	2,43	12,2	2,72	11,8	3,04	11,3	3,41	10,9	3,81
	15	14,1	2,15	13,6	2,41	13,2	2,70	12,7	3,03	12,2	3,40	11,7	3,81
	20	15,9	2,10	15,4	2,36	14,9	2,65	14,4	2,99	13,8	3,37	13,3	3,78
R(H/L)Q014	-20	7,24	2,72	7,14	2,97	7,05	3,26						
	-15	8,19	2,78	8,01	3,04	7,85	3,34						
	-7	10,1	2,84	9,78	3,11	9,51	3,43	9,25	3,79				
	-2	11,5	2,87	11,1	3,14	11,1	3,47	10,7	3,74	10,4	4,14		
	2	12,7	2,87	12,3	3,16	12,2	3,49	11,8	3,76	11,4	4,17	11,1	4,62
	7	14,4	2,88	14,0	3,17	13,5	3,50	13,1	3,88	12,7	4,30	12,3	4,77
	12	16,3	2,86	15,9	3,16	15,4	3,50	14,9	3,89	14,4	4,32	13,9	4,79
	15	17,6	2,85	17,1	3,15	16,5	3,50	16,0	3,89	15,5	4,32	15,0	4,80
	20	19,9	2,82	19,3	3,13	18,7	3,48	18,1	3,87	17,5	4,31	17,0	4,80
R(H/L)Q016	-20	8,35	3,25	8,31	3,54	8,27	3,89						
	-15	9,38	3,33	9,33	3,63	9,28	3,98						
	-7	11,5	3,42	11,3	3,73	11,1	4,10	10,9	4,52				
	-2	13,0	3,46	12,7	3,78	12,5	4,15	12,2	4,58	12,0	5,06		
	2	14,4	3,48	14,1	3,81	13,8	4,19	13,5	4,62	13,1	5,11	11,9	5,35
	7	16,3	3,50	16,0	3,83	15,6	4,22	15,2	4,66	14,8	5,15	13,4	5,40
	12	18,5	3,51	18,1	3,85	17,6	4,24	17,2	4,69	16,7	5,18	15,1	5,44
	15	20,0	3,51	19,5	3,86	19,0	4,25	18,5	4,69	18,0	5,20	16,6	5,75
	20	22,5	3,50	22,0	3,85	21,4	4,25	20,8	4,70	20,3	5,21	18,7	5,77

Maximum Heating Capacity (integrated values)

Model	LWC	30		35		40		45		50		55	
	Tamb	HC	PI	HC	PI	HC	PI	HC	PI	HC	PI	HC	PI
R(H/L)Q011	-20	5,04	2,17	4,88	2,37	4,84	2,61						
	-15	5,77	2,21	5,56	2,42	5,49	2,67						
	-7	6,89	2,24	6,63	2,46	6,54	2,72	6,43	3,02				
	-2	7,43	2,11	7,16	2,33	7,06	2,58	6,94	2,87	6,63	3,17		
	2	8,16	2,16	7,86	2,39	7,75	2,65	7,63	2,96	7,29	3,26	6,99	3,64
	7	11,6	2,21	11,2	2,46	10,8	2,74	10,3	3,06	9,94	3,42	9,53	3,82
	12	13,1	2,18	12,7	2,43	12,2	2,72	11,8	3,04	11,3	3,41	10,9	3,81
	15	14,1	2,15	13,6	2,41	13,2	2,70	12,7	3,03	12,2	3,40	11,7	3,81
	20	15,9	2,10	15,4	2,36	14,9	2,65	14,4	2,99	13,8	3,37	13,3	3,78
R(H/L)Q014	-20	6,45	2,72	6,35	2,97	6,28	3,26						
	-15	7,29	2,78	7,13	3,04	6,99	3,34						
	-7	8,06	2,84	7,84	3,11	7,62	3,43	7,42	3,79				
	-2	9,27	2,70	9,00	2,96	8,95	3,26	8,65	3,52	8,38	3,90		
	2	10,0	2,78	9,71	3,05	9,65	3,37	9,32	3,64	9,02	4,03	8,73	4,47
	7	14,4	2,88	14,0	3,17	13,5	3,50	13,1	3,88	12,7	4,30	12,3	4,77
	12	16,3	2,86	15,9	3,16	15,4	3,50	14,9	3,89	14,4	4,32	13,9	4,79
	15	17,6	2,85	17,1	3,15	16,5	3,50	16,0	3,89	15,5	4,32	15,0	4,80
	20	19,9	2,82	19,3	3,13	18,7	3,48	18,1	3,87	17,5	4,31	17,0	4,80
R(H/L)Q016	-20	7,44	3,25	7,39	3,54	7,36	3,89						
	-15	8,35	3,33	8,30	3,63	8,26	3,98						
	-7	8,91	3,34	8,77	3,64	8,63	4,00	8,49	4,41				
	-2	10,5	3,26	10,3	3,56	10,1	3,91	9,91	4,31	9,71	4,77		
	2	11,1	3,15	10,9	3,45	10,6	3,79	10,4	4,18	10,2	4,62	9,19	4,84
	7	16,3	3,50	16,0	3,83	15,6	4,22	15,2	4,66	14,8	5,15	13,4	5,40
	12	18,5	3,51	18,1	3,85	17,6	4,24	17,2	4,69	16,7	5,18	15,1	5,44
	15	20,0	3,51	19,5	3,86	19,0	4,25	18,5	4,69	18,0	5,20	16,6	5,75
	20	22,5	3,50	22,0	3,85	21,4	4,25	20,8	4,70	20,3	5,21	18,7	5,77

3TW57752-1C

SYMBOLS

CC : Cooling capacity at maximum operating frequency, measured acc. Eurovent 6/C/003-2006 (kW)

HC : Heating capacity at maximum operating frequency, measured acc. Eurovent 6/C/003-2006 (kW)

PI : Power input (kW), measured acc. Eurovent 6/C/003-2006 (kW)

LWE : Leaving Water Evaporator temperature (°C)

LWC : Leaving Water Condensor temperature (°C)

Tamb : Ambient temperature (°C) RH=85%

Conditions

1 **Cooling capacity**
Capacity is according to Eurovent rating standard 6/C/003-2006 and valid for chilled water range Dt = 3~8°C
Capacity values may not be extrapolated below 7°C leaving water temperature

2 **Heating capacity**
Capacity is according to Eurovent rating standard 6/C/003-2006 and valid for chilled water range Dt = 3~8°C

3 **Power input**
Power input is total of indoor and outdoor unit, except the circulation pump; according to Eurovent rating standard 6/C/003-2006.
Pump power input to be added = 90 W (according EN14511).
For ERHQ011-16AAW1 models only: if Tamb < 4°C: bottom plate heater power input to be added = 95 W

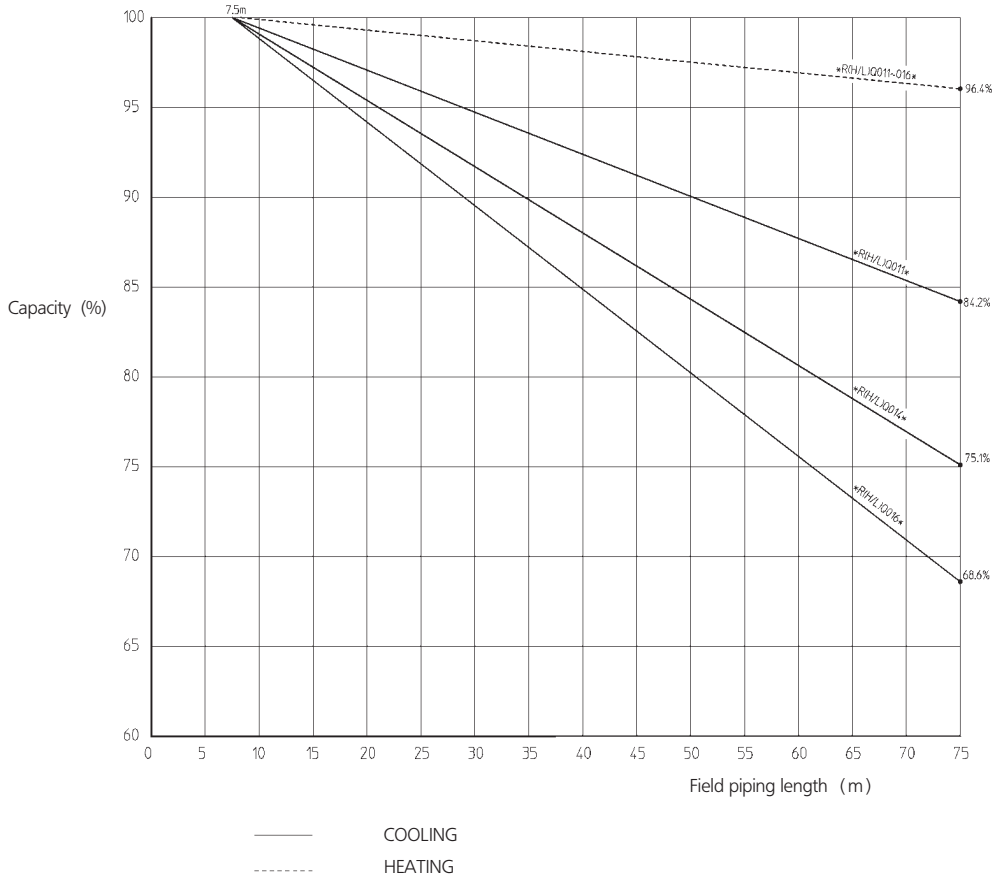
Notes:
- For the model with heatertape (*RLQ): when ambiernt temperature becomes lower than [F-02] (default = 3°C) bottom plate heater power input to be added = 95W
- [F-02] = BPH ON temp for more details see installationmanual of indoor unit.

3 Capacity tables

3 - 2 Heating capacity tables

ERHQ011-016BV3

Capacity in function of field piping length for inverter



3TW59492-1A

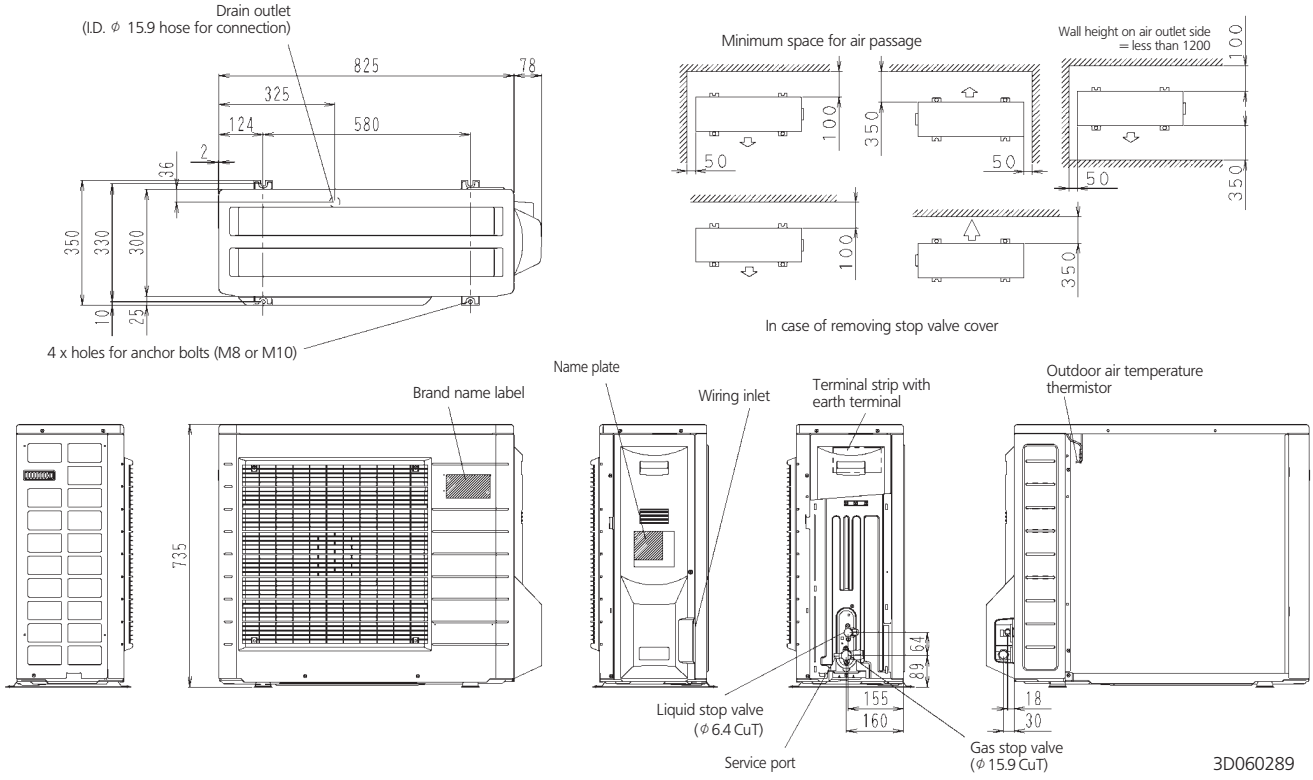
9
3

4 Dimensional drawing & centre of gravity

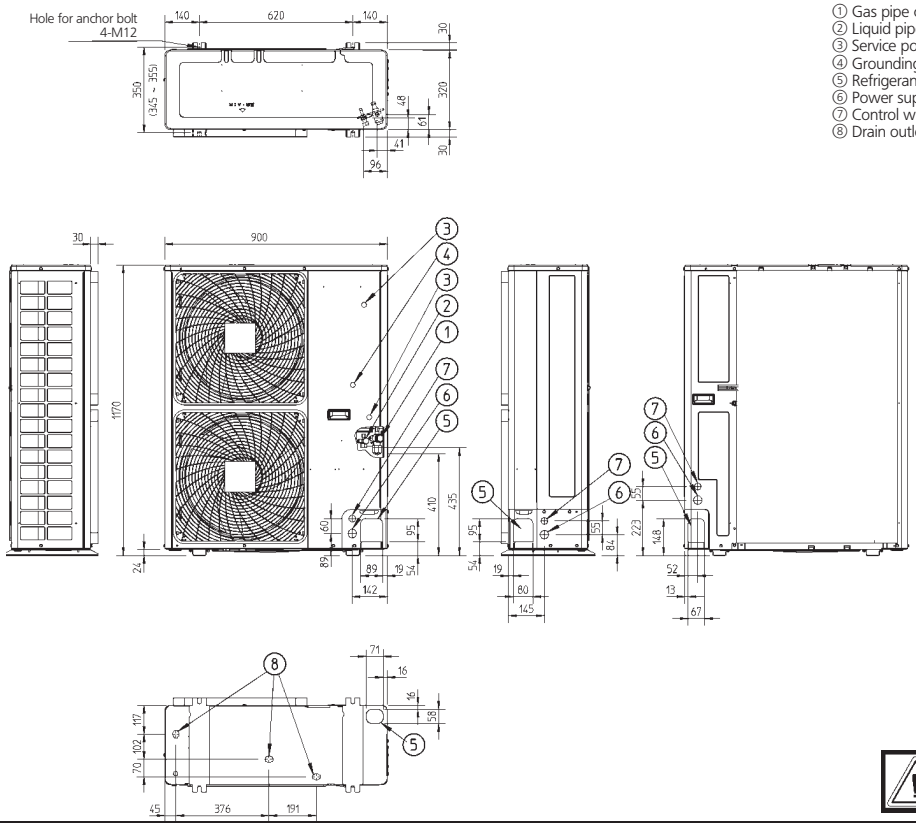
4 - 1 Dimensional drawing

unit (mm)

ERHQ006-008BV3



ERHQ011-016BV3



① Gas pipe connection ϕ 15.9 flare
② Liquid pipe connection - ϕ 9.5 flare
③ Service port (in the unit)
④ Grounding terminal M5 (in switch box)
⑤ Refrigerant piping intake
⑥ Power supply wiring intake (knock out hole ϕ 34)
⑦ Control wiring intake (Knock out hole ϕ 27)
⑧ Drain outlet

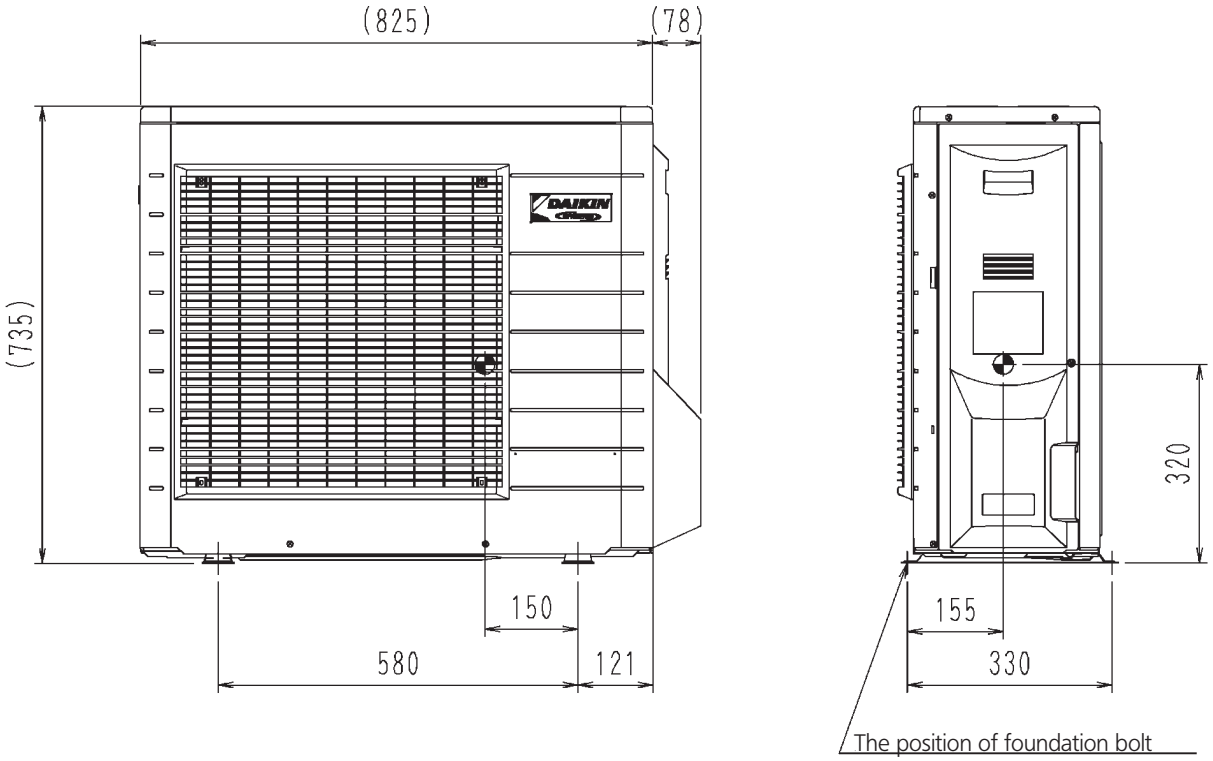
3TW57764-1B

9
4

4 Dimensional drawing & centre of gravity

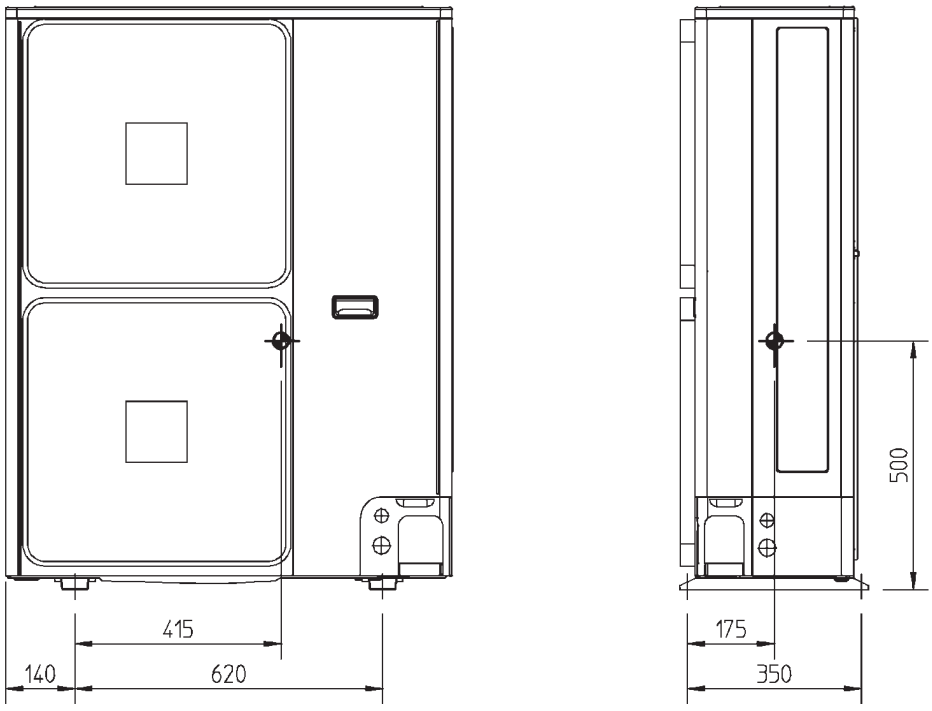
4 - 2 Centre of gravity

ERHQ006-008BV3



4D042258R

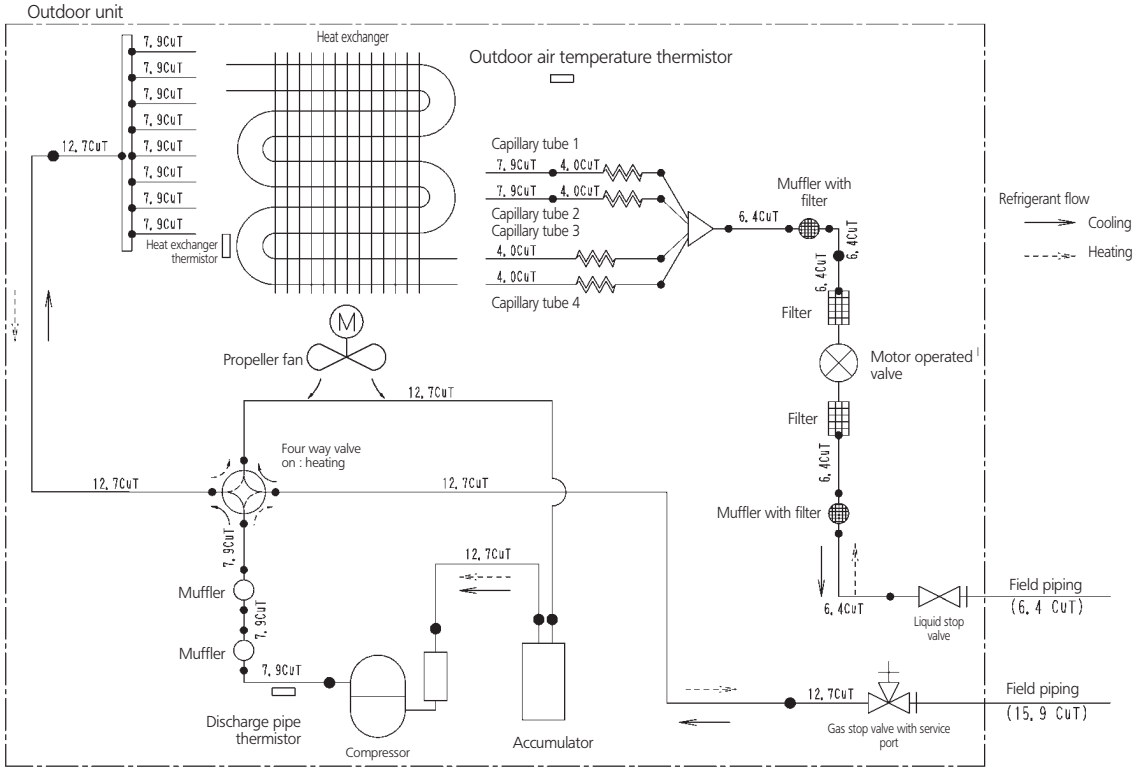
ERHQ011-016BV3



4TW29169-4A

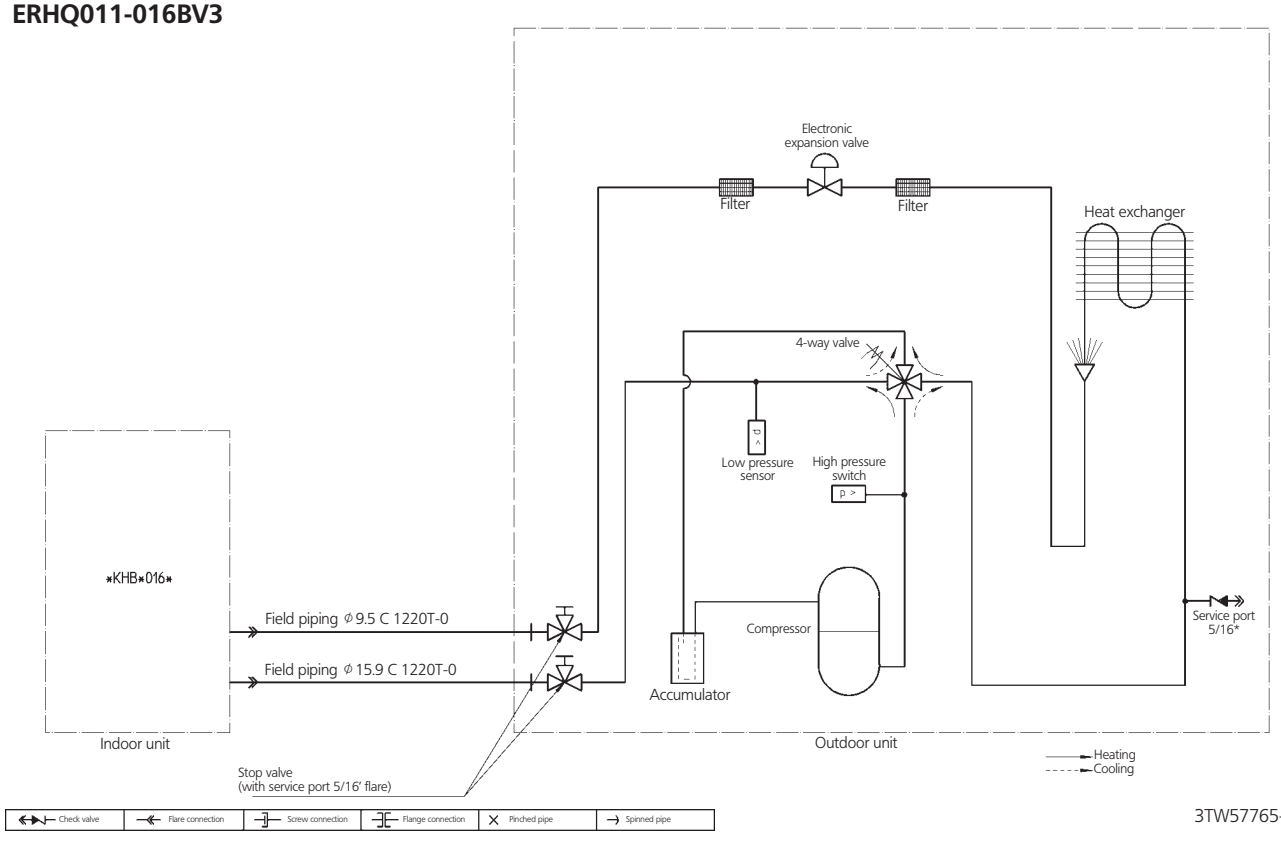
5 Piping diagram

ERHQ006-008BV3



3D052750H

ERHQ011-016BV3

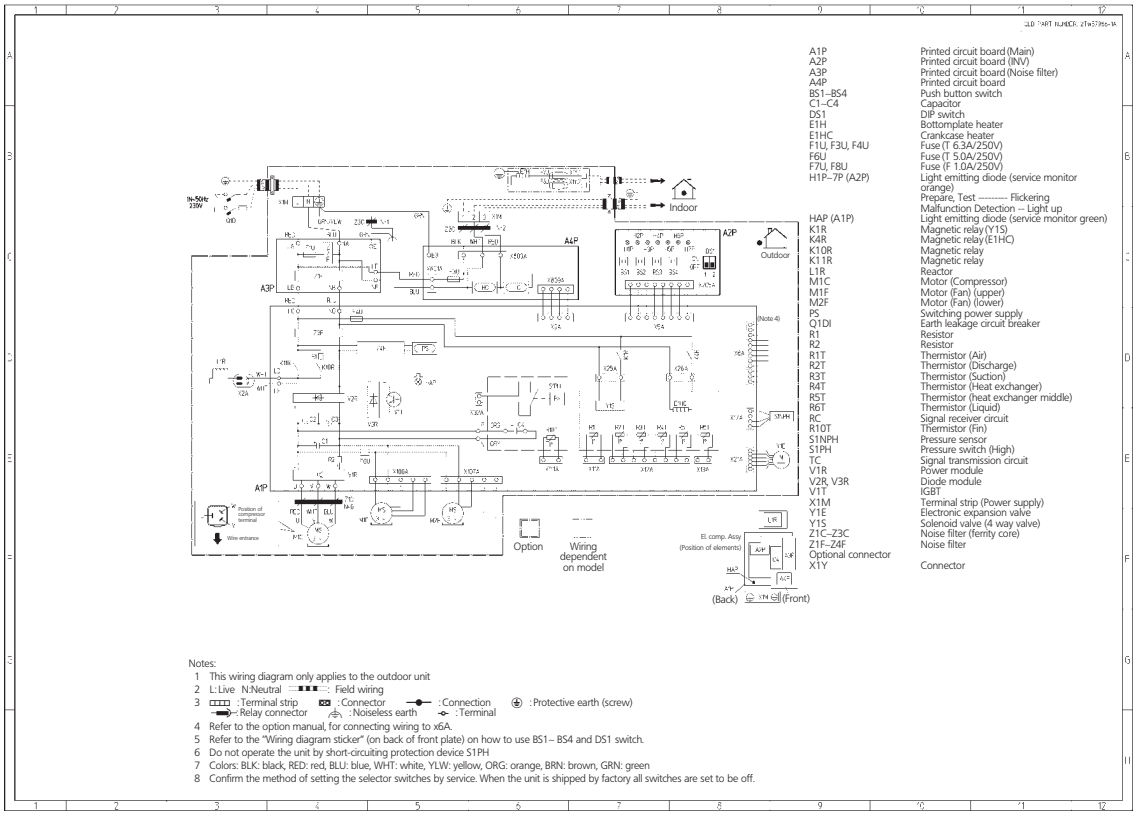


3TW57765-1A

6 Wiring diagram

6 - 1 Wiring diagram

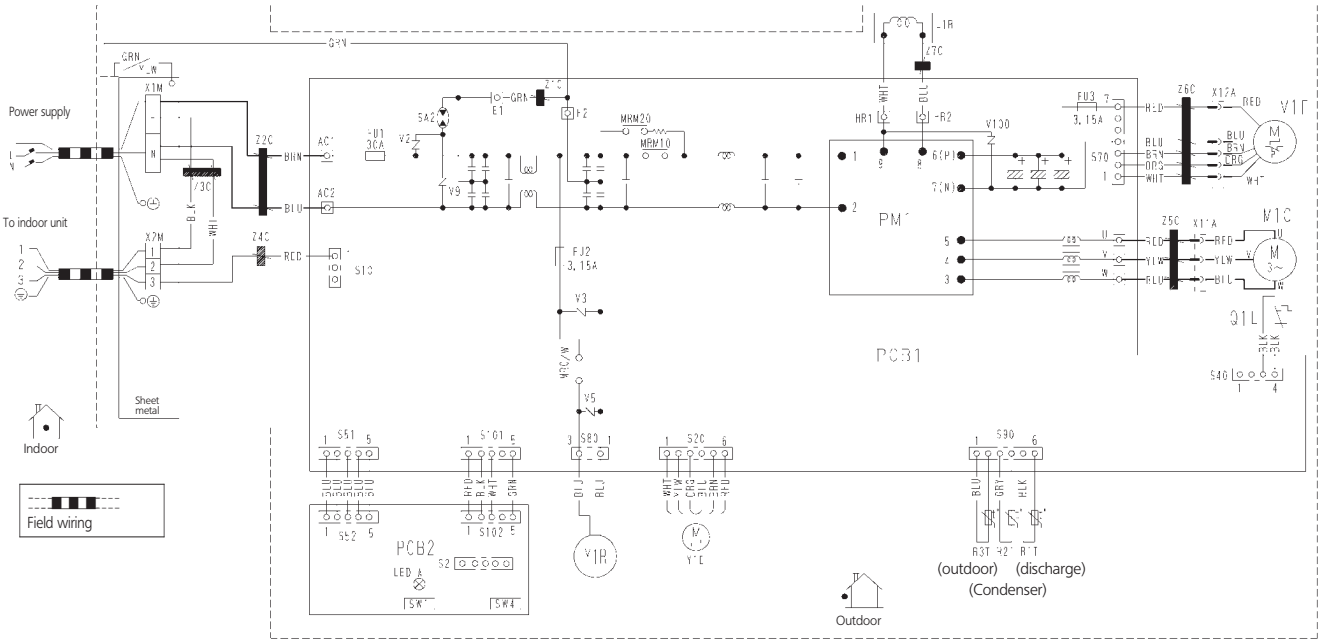
ERHQ011-016BV3



Notes:
1 This wiring diagram only applies to the outdoor unit
2 L: Live N: Neutral ▬▬: Field wiring
3 ▭: Terminal strip ⊠: Connector —●—: Connection ⏚: Protective earth (screw)
—●▭: Relay connector ⏚: Noiseless earth —○—: Terminal
4 Refer to the option manual, for connecting wiring to x6A.
5 Refer to the "Wiring diagram sticker" (on back of front plate) on how to use BS1– BS4 and DS1 switch.
6 Do not operate the unit by short-circuiting protection device S1PH
7 Colors: BLK: black, RED: red, BLU: blue, WHT: white, YLW: yellow, ORG: orange, BRN: brown, GRN: green
8 Confirm the method of setting the selector switches by service. When the unit is shipped by factory all switches are set to be off.

2TW59556-1A

ERHQ006-008BV3

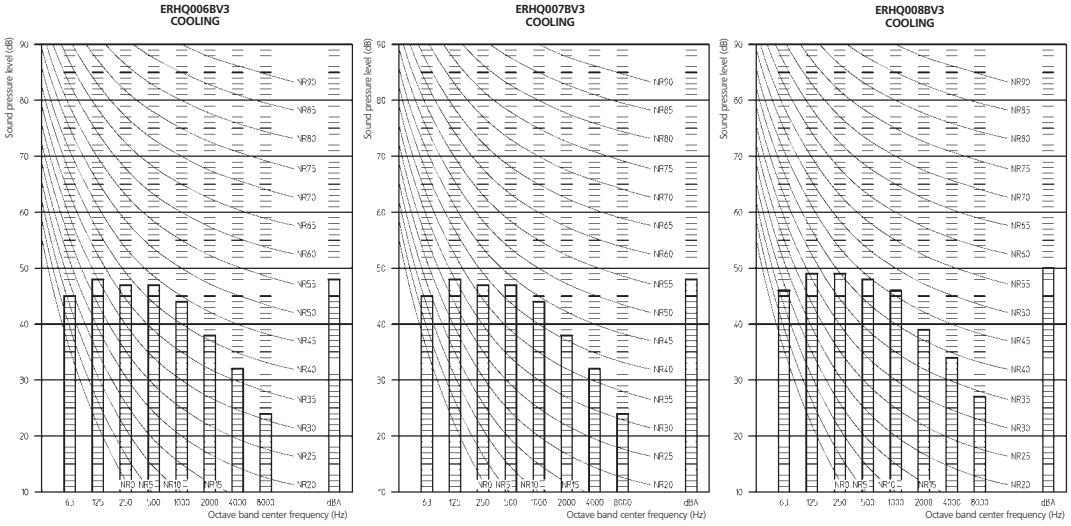


Z1C–Z7C	: Ferrite core	MRM10, MRM20		Q1L	: Overload protector
X1M, X2M	: Terminal strip	MRC/W	: Magnetic relay	PM1	: Power module
Y1E	: Electronic expansion valve coil	R1T–R3T	: Thermistor	PCB1,2	: Printed circuit board
V2, V3, V5, V9, V100	: Varistor	S2–S102	: Connector	Y1R	: Reversing solenoid valve coil
SA2	: Surge arrester	LEDA	: Pilot lamp	Sheet metal	: Terminal strip fixed plate
FU1, FU2, FU3:	: Fuse	L	: Live		
AC1, AC2		N	: Neutral		
U, V, W, X11A, X12A		SW1	: Forced operation on/off switch SW (SW1)		
E1, E2		SW4	: Local setting SW (SW4)		
HR1, HR2	: Connector	M1C	: Compressor motors		
		M1F	: Fan motor		
		L1R	: Reactor		

3D052296E

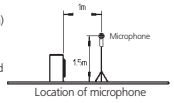
7 Sound data

7 - 1 Sound pressure spectrum



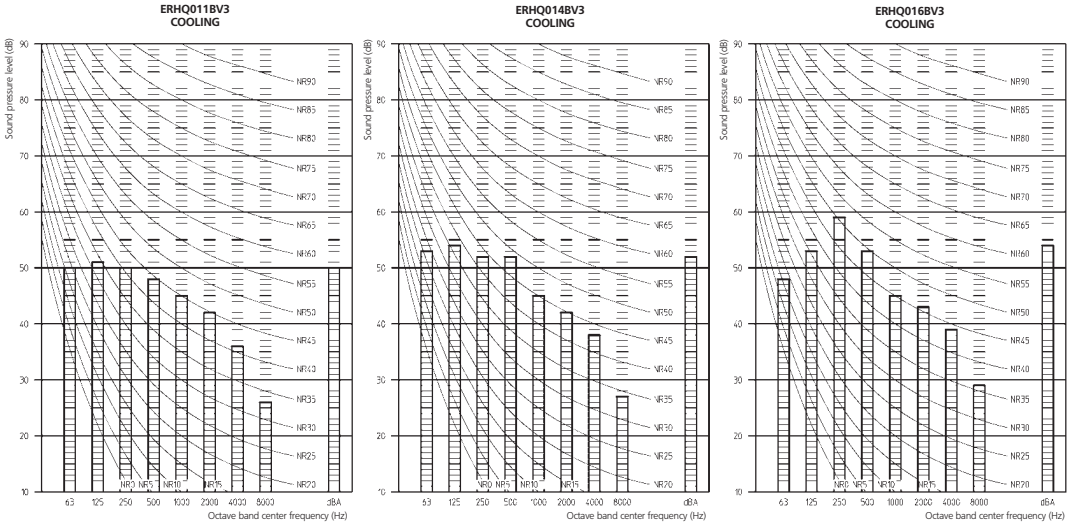
Notes:

1 Data is valid at free field condition (measured in a semi-anachoic room)
2 dBA = A-weighted sound power level (A-scale according to IEC)
3 Reference acoustic pressure 0dB = 20µPa
4 If sound is measured under actual installation conditions, the measured value will be higher due to environmental noise and sound reflections.



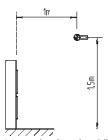
Location of microphone

3TW57557-3



Notes:

1 Data is valid at free field condition (measured in a semi-anachoic room)
2 dBA = A-weighted sound power level (A-scale according to IEC)
3 Reference acoustic pressure 0dB = 20µPa
4 If sound is measured under actual installation conditions, the measured value will be higher due to environmental noise and sound reflections.



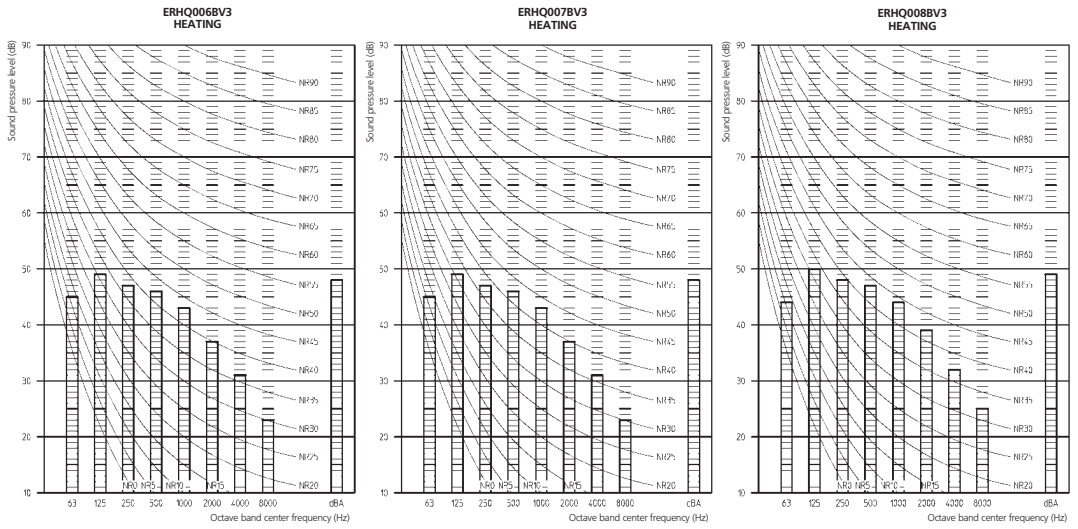
Measuring location (discharge side)

3TW57767-1B

9
7

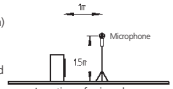
7 Sound data

7 - 1 Sound pressure spectrum



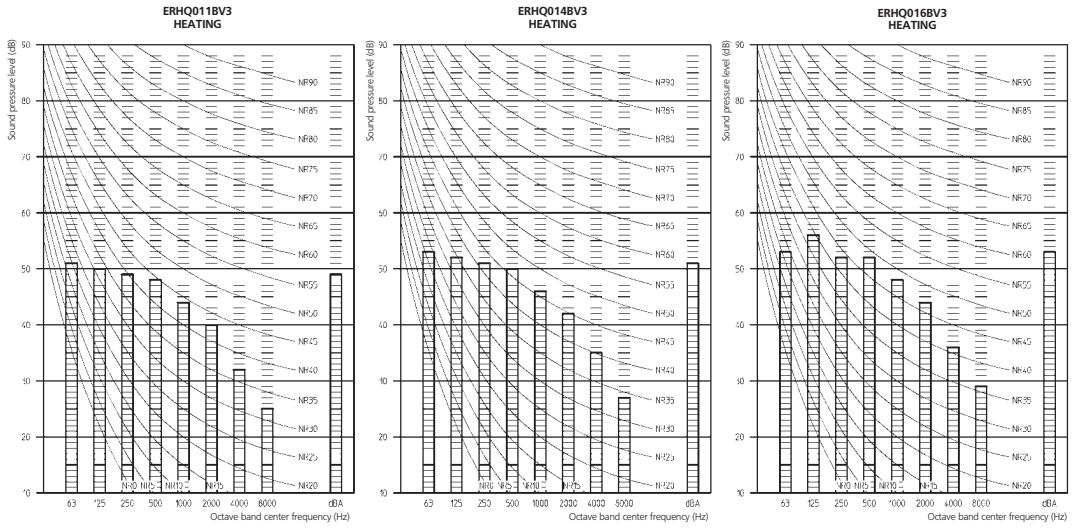
Notes:

1. Data is valid at free field condition (measured in a semi-anachoic room)
2. dBA = A-weighted sound power level (A-scale according to IEC)
3. Reference acoustic pressure 0dB = 20µPa
4. If sound is measured under actual installation conditions, the measured value will be higher due to environmental noise and sound reflections.



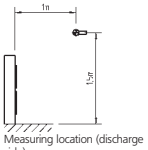
Location of microphone

3TW57557-4



Notes:

1. Data is valid at free field condition (measured in a semi-anachoic room)
2. dBA = A-weighted sound power level (A-scale according to IEC)
3. Reference acoustic pressure 0dB = 20µPa
4. If sound is measured under actual installation conditions, the measured value will be higher due to environmental noise and sound reflections.

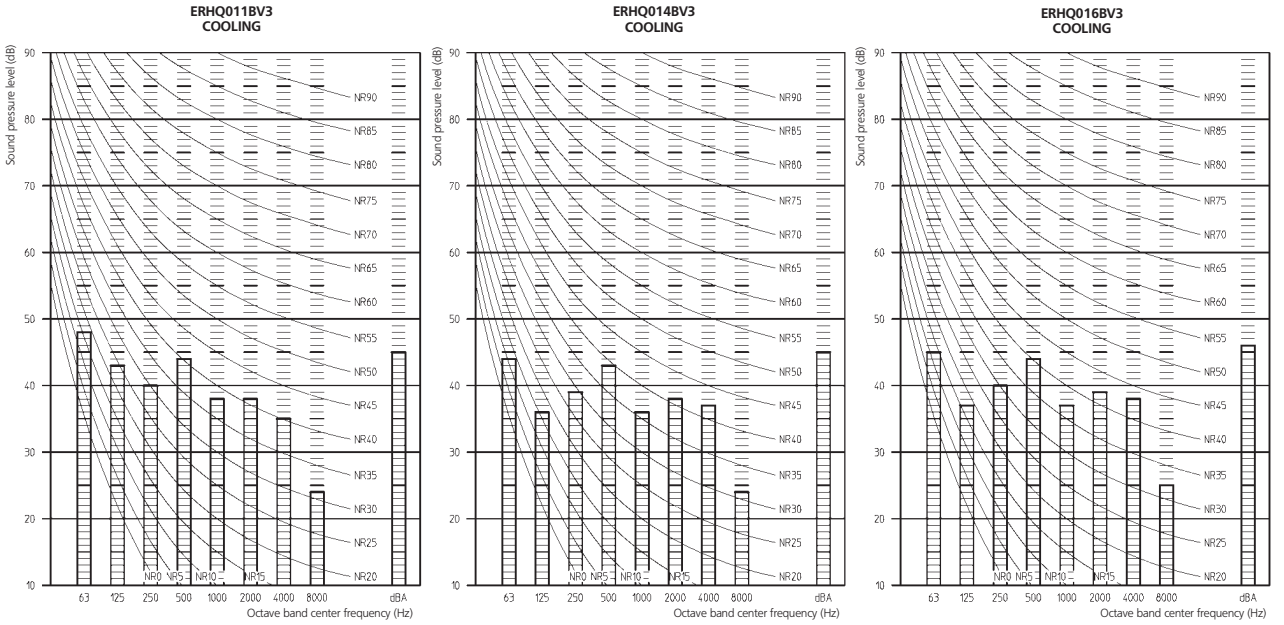


Measuring location (discharge side)

3TW57767-2B

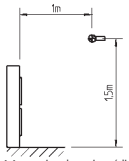
7 Sound data

7 - 2 Sound pressure spectrum quiet mode



Notes:

1 Data is valid at free field condition (measured in a semi-anachoic room)
2 dBA = A-weighted sound power level (A-scale according to IEC)
3 Reference acoustic pressure 0dB = 20µPa
4 If sound is measured under actual installation conditions, the measured value will be higher due to environmental noise and sound reflections.

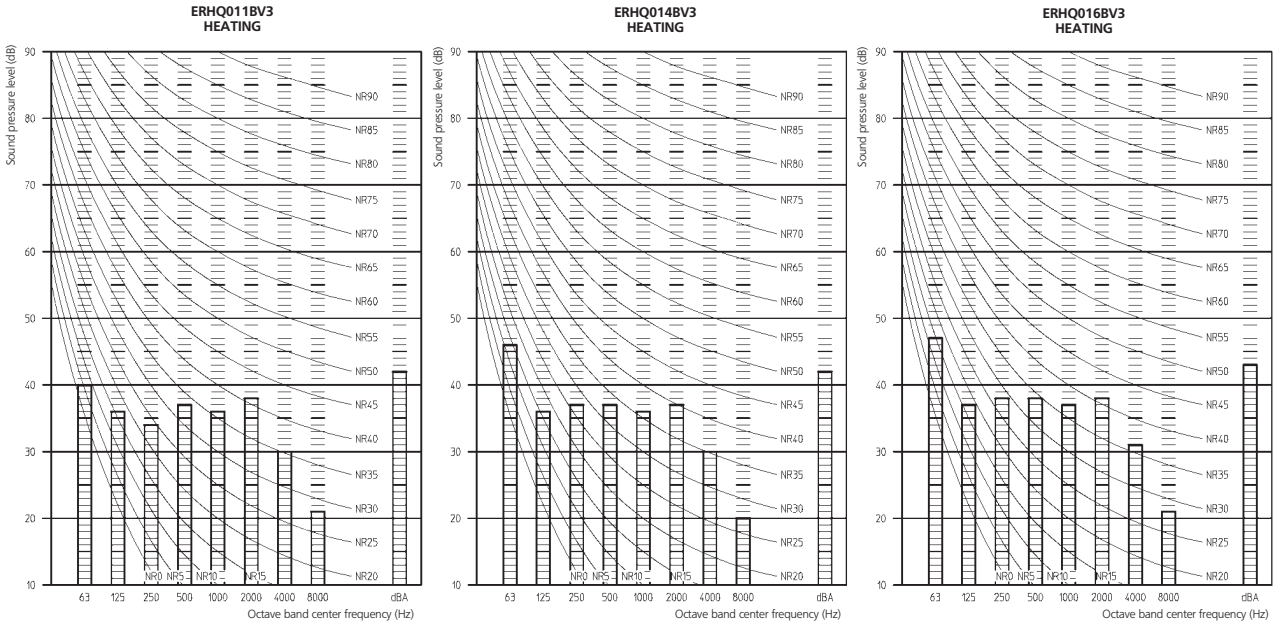


Measuring location (discharge side)

3TW57767-3A

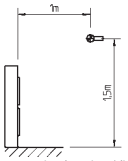
7 Sound data

7 - 2 Sound pressure spectrum quiet mode



Notes:

1. Data is valid at free field condition (measured in a semi-anachoic room)
2. dBA = A-weighted sound power level (A-scale according to IEC)
3. Reference acoustic pressure 0dB = 20μPa
4. If sound is measured under actual installation conditions, the measured value will be higher due to environmental noise and sound reflections.



Measuring location (discharge side)

3TW57767-4A

8 Installation

8 - 1 Installation method

ERHQ-BV3

Outdoor unit

Installation guidelines / precautions Daikin Altherma

Installation location (General)

- The equipment is not intended for use in a potentially explosive atmosphere.
- The equipment is not intended for use in a potentially explosive atmosphere.
- Choose a place solid enough to bear the weight and vibration of the unit, where the operation noise will not be amplified.
- Choose a location where the hot/cold air discharger from the unit or the operation noise will not cause a nuisance to the neighbours of the user.
- Avoid places near a bedroom and the like, so that the operation noise will cause no trouble.
- There must be sufficient space for carrying the unit into and out of the site.
- There must be sufficient space for air passage and no obstructions around the air inlet and the air outlet.
- The site must be free from the possibility of flammable gas leakage in a nearby place.
- Locate the unit so that the noise and the discharged hot/cold air will not annoy the neighbours.
- Install units, power cords and inter-unit cables at least 3 m away from television and radio sets. This is to prevent interference to images and sounds.
- Depending on radio wave conditions, electromagnetic interference may still occur even if installed more than 3 m away.
- In coastal areas or other places with salty atmosphere of sulfate gas, corrosion may shorten the life of the outdoor unit.
- Since drain flows out of the outdoor unit, do not place anything under the unit wicht must be kept away from moisture.

Installation location (in cold climates)

- To precent exposure to wind, install the outdoor unit with its suction side facing the wall.
- Never install the outdoor unit at a site where the suction side may be exposed directly to wind.
- To prevent exposure to wind, install a baffle plate on the air discharge side of the outdoor unit.
- Unit shoud be installed in a way that a minimum of 10 cm free space is assured below the unit's bottom plate at all conditions, e.g.: heavy snowfall (if necessary construct a pedestal).
- In heavy snowfall areas it is very important to select an installation site where the snow ill not affect the unit. If lateral snowfall is possible, make sure that the heat exchanger coil is not affected by the snow (if necessary construct a lateral canopy). (See figure)

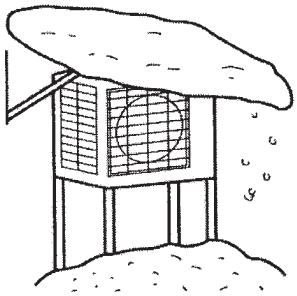


Figure 1: construction of canopy and pedestal

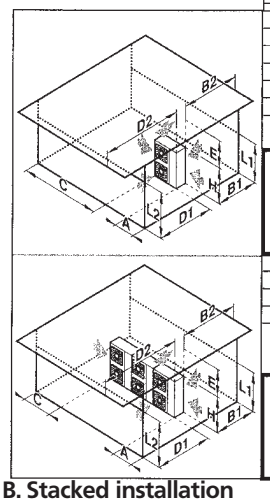
4TW57919-7

8 Installation

8 - 1 Installation method

ERHQ011-016BV3

A. Non stacked installation



↙	↗	↘	↖	↓			A	B1	B2	C	D1	D2	E	L1/L2	
✓								≥100							
✓		✓	✓				≥100	≥100		≥100					
✓				✓				≥100				≤500	≥1000		
✓		✓	✓	✓			≥150	≥150		≥150		≤500	≥1000		
	✓										≥500				
	✓			✓					≤500		≥500		≥1000		
✓	✓				L1<L2			≥100			≥500				
					L2<L1			≥100			≥500				
✓	✓			✓	L1<L2	L1≤H		≥250	≤500		≥750		≥1000	0<L1≤1/2H	1
											≥1000			0<L1≤1/2H	
						H<L1		L1≤H							
					L2<L1	L2≤H		≥100			≥1000	≥500	≥1000	0<L2≤1/2H	
								≥200						1/2H<L2≤H	
						H<L2		L2≤H							
✓		✓	✓				≥200	≥300		≥1000					
✓		✓	✓	✓			≥200	≥300		≥1000		≤500	≥1000		
	✓										≥1000				
	✓			✓					≤500		≥1000		≥1000		
✓	✓				L1<L2			≥300			≥1000				
					L2<L1			≥250			≥1500			0<L2≤1/2H	
								≥300						1/2H<L2≤H	
✓	✓			✓	L1<L2	L1≤H		≥300	≤500		≥1000		≥1000	0<L1≤1/2H	1
											≥1250			1/2H<L1≤H	
						H<L1		L1≤H							
					L2<L1	L2≤H		≥250			≥1500	≤500	≥1000	0<L2≤1/2H	
								≥300						1/2H<L2≤H	2
						H<L2		L2≤H							

Legend unit (mm)

- ↙ Suction side obstacle
- ↗ Discharge side obstacle
- ↘ Left side obstacle
- ↖ Right side obstacle
- ↓ Top side obstacle

✓ Obstacle is present

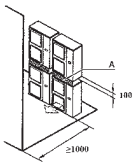
This situation is not allowed.

1 In these cases, close the bottom of the installation frame to prevent discharged air from being bypassed.

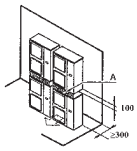
2 In these cases, only 2 units can be installed.

B. Stacked installation

1. Obstacles exist in front of the outlet side



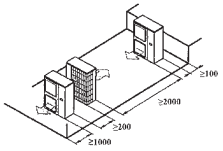
2. Obstacles exist in front of the air inlet



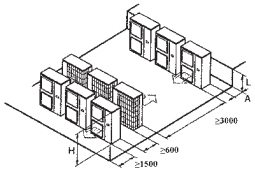
Do not stack more than one unit.
About 100mm is required as the dimension for laying the upper outdoor unit's drain pipe.
Get the portion A sealed so that air from the outlet does not bypass.

C. Multiple-row installation

1. Installation of one unit per row



2. Installing multiple units (2 units or more) in lateral connection per row



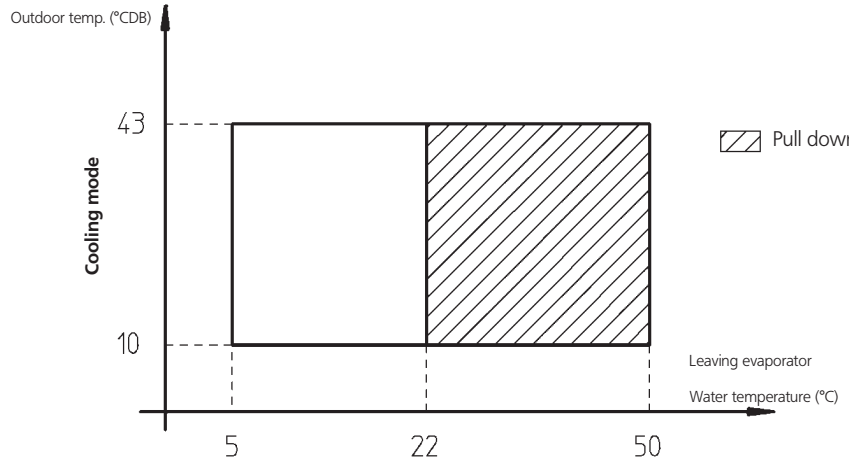
Relation of dimensions of H, A, and L are shown in the table below.

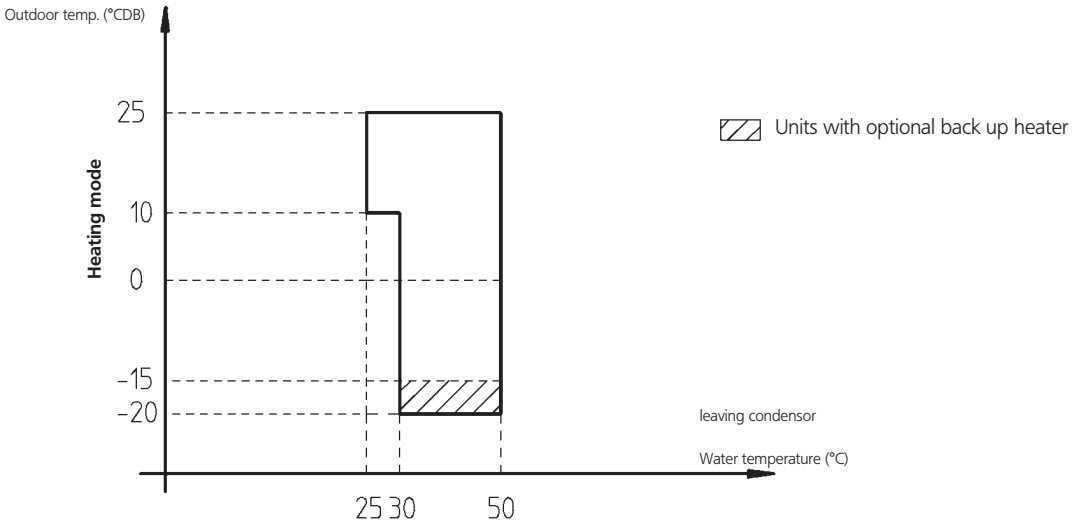
	L	A
L ≤ H	0 < L ≤ 1/2 H	250
	1/2 H < L	300
H < L	Installation not allowed	

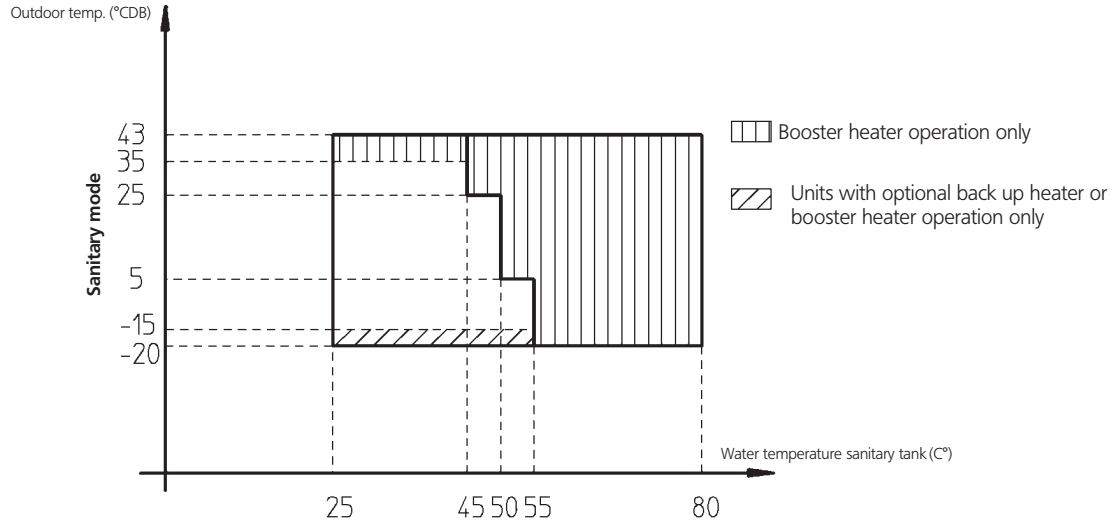
3TW26739-4

9
8

9 Operation range



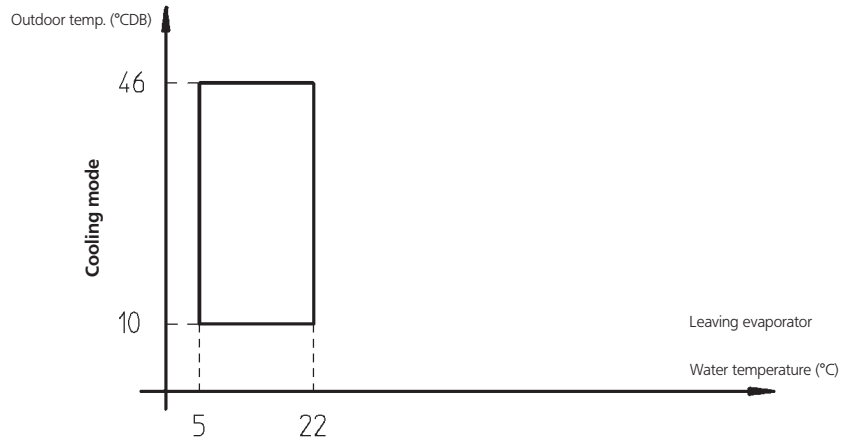


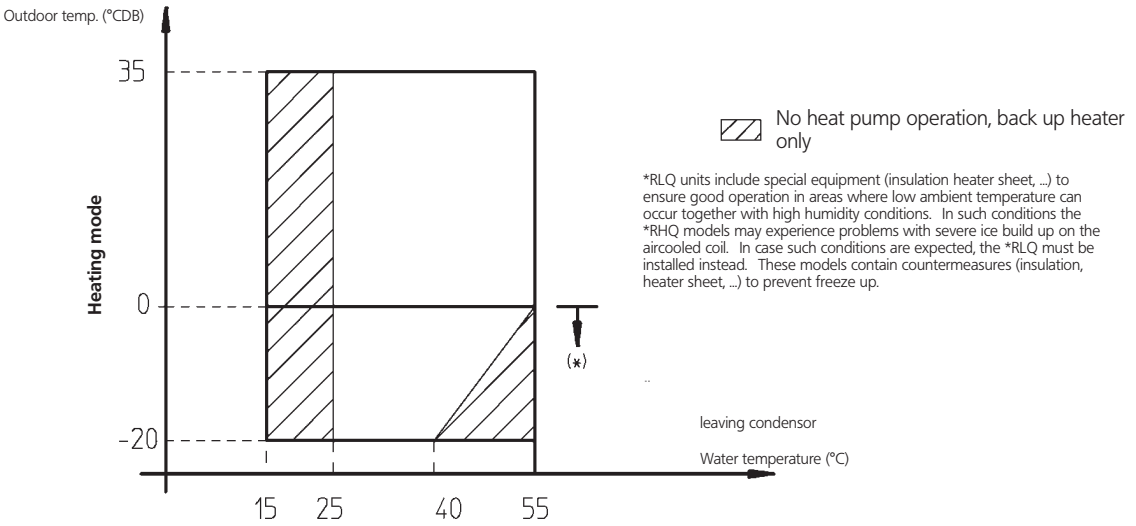


4TW57783-1

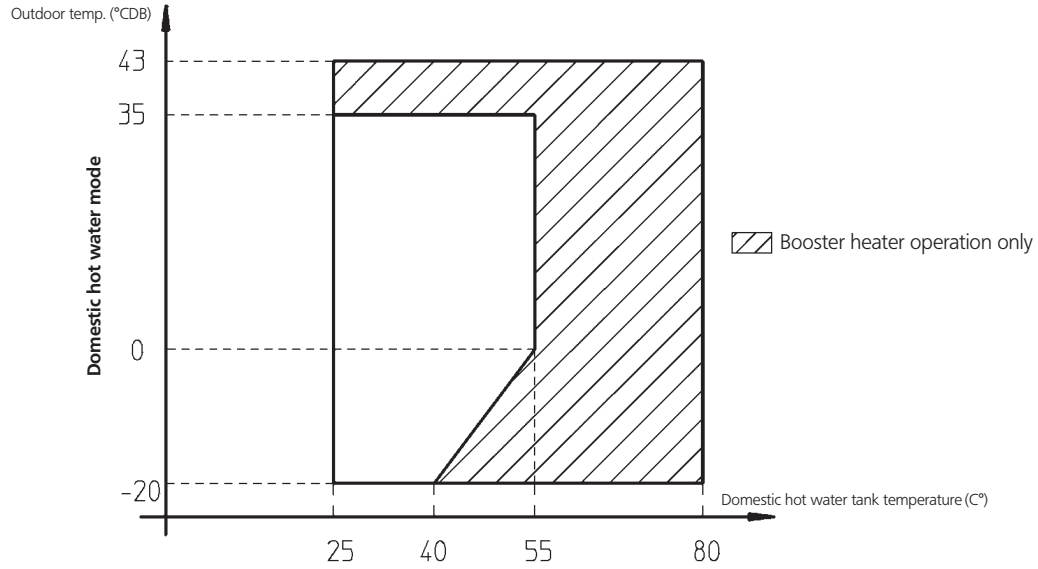
9 Operation range

ERHQ011-016BV3





*RLQ units include special equipment (insulation heater sheet, ...) to ensure good operation in areas where low ambient temperature can occur together with high humidity conditions. In such conditions the *RHQ models may experience problems with severe ice build up on the aircooled coil. In case such conditions are expected, the *RLQ must be installed instead. These models contain countermeasures (insulation, heater sheet, ...) to prevent freeze up.



4TW57753-1C